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ABSTRACT

The requirements of the revised Elementary and Secondary School Act for annual assessment of student progress highlight problems in using tests in a stringent manner to assess students and teachers. Issues such as validity, reliability, and time spent on test preparation must be considered. Some tests are used for prediction of future performance, but these results are not the only factor in student success at higher levels. State mandated testing at elementary and secondary levels does not always take into account the differing abilities of students or the relevance of their studies to their life goals. In fact, there are no easy ways of documenting student achievement. Computerized adaptive testing may solve some problems in assessment, and improvement-oriented testing is another type of testing that may provide valuable information about achievement. (SLD)

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Testing and Predictions of Pupil Success

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TESTING AND PREDICTIONS OF PUPIL SUCCESS

The revised Elementary and Secondary School Act (ESEA) requires pupils to be tested annually in grades three through eight, as well as in grade ten. The purpose of these tests is to measure annual progress of learner progress. Then too, teacher accountability is in evidence. Pupils are to make annual progress on these tests to indicate how well teachers are teaching. The ultimate in accountability is the exit test. Thus, a pupil needs to pass the exit test to receive a high school diploma. Thus, a high school graduation diploma might be withheld from a pupil if the exit test is not passed. This is high stakes testing. There are selected problems here when using tests for pupil promotion consideration to the next higher grade level as well as for maintaining teacher tenure in the public schools (Ediger, 2003, 9- 15).

Problems in Testing

There are immediate problems when using tests in a stringent manner to assess pupils and teachers. The following are vital questions to raise:

1. are these test items valid? Do they measure what they are supposed to measure? This brings up the question, "What should pupils know and be able to do as a result of school attendance?" With all the needs in society, there are a plethora of vocations for pupils to follow ultimately. This includes the professions as well as highly skilled areas of work. Teachers are encouraged to teach the academics, but are there salient skills also needed in society, which do not consist of academic subject matter? Quality automobile mechanics, carpet layers, bricklayers, and carpenters, among other services, are indeed essential and academic subject matter knowledge for these workers is not exactly essential. It is good, however, to be well educated and have much subject matter knowledge.
2. are the test items reliable? Good test items should measure each pupil's test results consistently. If a pupil's score is on the fortieth percentile the first time and the ninetieth percentile the second time of testing, in test/retest reliability, then one wonders what the percentile ranking of that child actually is in achievement. Certainly, consistency of test results is lacking. Sometimes, a test shows high reliability, but low validity. It is easier to obtain reliable test results as compared to valid results.
3. is it good to spend much time on pupils honing for good

test results when there is much to learn in life? No occupation known tests the worker to determine how much he/she is skilled at in actual job performance. Should an automobile mechanic, medical doctor, or lawyer be tested with a paper/pencil test to ascertain what can be done skillfully? Each worker/professional, rather, shows at the work place what can be done capably by his/her duties performed. The knowledge will be inherent within the skill performed. Thus, knowledge acquired in school needs to be useful and not obtained for its own sake (See Education Week, 2002).

Predictive Tests

There are predictive tests taken on the high school level, for example, which do attempt to predict university coursework success. These predictive tests, even if the test results from a student are very satisfactory, has a measure of error. If a student then receives a score of twenty and the standard error of measurement is two points his/her score actually could vary from 18 to 22 score points. Thus, if nineteen points is needed for admittance to university, the student's score of twenty and its error of measurement may make for a score as low as 18. Hopefully, a university would not discard a student from attendance due to missing the passing mark by one point. There are a plethora of other factors than test scores which should enter in as admittance factors. Thus, the following are viable factors to consider on the student's part in university admittance:

* motivation and a desire to succeed. Wanting to learn and being willing to work hard certainly are valuable factors to consider.
* interest factors are significant when a student wishes to pursue a given area of specialization. Interest can be a part of motivation, but also can be developed in time.
* purposes held can be a deciding factor to pursue a given area of specialization. If a student can perceive much purpose or reasons for becoming a teacher, certainly, this should be helpful in being successful as compared to seeing little or no purpose in teaching.
* meaning in pursuing a goal. Some individuals cannot pursue meaning in following a particular objective in life. Or, they may not later on, at the work place, tend to perceive meaning on what is being done. Choices made at one time may change in time as to staying with a career.

Flexibility is a key concept when thinking of what areas of study should be available for public school pupils and which career choices should be made on the higher education level. Teachers, supervisors, and parents must keep options open for children in the public schools to pursue. Extra curricular activities whether offered in school or outside the school setting should be varied, open to those interested, provide for individual differences, and not closed to those who may lack financial means. Extra or co-curricular activities can assist many to make viable decisions presently as well as for the future (Allen, 2001).

State Mandated Objectives and Tests

State mandated testing has as its purpose to make certain that pupils achieve what is essential for live and living. That makes for a very broad set of guidelines in the writing of objectives and test items. Certainly, when pupils differ from each other in a plethora of ways, it becomes impossible to write and implement that which fits all in one size. However, states have attempted to do this with nearly each state in the union having their own tests and cut off points for pupil promotion. With a single test for all pupils on a selected grade level within a state, there are perhaps very few accommodations made for those who read very slowly, are mentally impaired, physically handicapped, among other difficulties. One variable, basically, is kept the same and that being the test items each pupil responds to.

There certainly are things to watch for when the current set of pupils is performing at the work place in different fields of endeavor. The core curriculum in school must then

1. provide for all learners whatever the future will hold for these pupils. It is true that all need to learn to read, compute, and write as basics, but the level of expectancy for each will vary and for some the variation will be great indeed.
2. provide subject matter as general education for all, such as in science, social studies, art, music, and physical education. General education indicates the inherent subject matter is needed for enriching the self and for becoming a good citizen whereas the core pertains to that which all need to be successful, as a minimal level, at the work place.
3. explain if divisions between the core and general education is needed and rational. The future work place and good citizenship, no doubt, are one and cannot be separated from each other. With high stakes testing reading and mathematics might receive priority in the classroom due to being

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tested upon (Ediger, 2002, 90- 95).

If pupils with heavy testing presently will become better readers in the future as compared to those in the elementary schools presently remains to seen. The author was amazed one day when having his car being repaired by a mechanic. The car was a 1991 model and the mechanic faced a problem in doing the repair work. So, he went up the steps to the archives where there were repair manuals of older cars. He brought the manual down and read aloud from the needed section as to what to do. The content was very complex. The author complemented on his reading ability. He looked surprised and said his teachers had always been critical of his reading ability! What makes subject matter easy to read? No doubt, the mechanic was interested in reading about automobile repair work, even thought the related script was indeed difficult. The familiarity of the ideas read made the act of reading easier. There still is the problem of why the mechanic in his public school years had been labeled a poor reader. Many labeled as good readers would, no doubt, be labeled as poor readers when reading the automobile repair manual. Good mechanics are certainly needed in modern society. Present day norm and criterion referenced tests make no leeway for those not inclined academically. The same can be said for other relevant trades such as carpenters, bricklayers, carpet layers, and plumbers. State mandated tests and their results from pupils need consideration that not all important knowledge and skills are being measured. The question of validity comes up again in terms of which content should be contained on state mandated tests. Thus, what correlation will there be between state mandated test results and the future citizen at the work place (See Donaldson, 2001)?

Problems in Testing

In a third grade classroom, most students are at various points in Piaget's concrete operational stage of development. Milestone of development occur in one child or another almost daily. Often, they go unnoticed, until suddenly , something makes an observer say, "Wow!" Still the children have not become abstract thinkers. They learn and test best in a concrete, hands on mode. The curriculum frameworks for mathematics recognize in their opening section: "Students are active individuals who construct, modify, and integrate ideas in interacting with materials, the world around them, and their peers." This statement is especially true for third graders: they

must construct and interact with materials if they are going to understand and learn. But, this test is an abstract, paper and pencil test. Very few manipulatives are supplied-- and those only for mathematics. In the language arts section, there is nothing for the student to touch, to hold, or to move around (Gould, 2003).

There certainly are problems then in the academics versus pupil development. The tests used so frequently are not developmentally sound. If the stage of pupil development is the concrete operations, according to Jean Piaget, and the test items stress the abstract only, test results will not show what a pupil has knowledge of or can do.

In daily life, each person generally is given the time needed to complete a task, be it in the classroom or at the work place. However, testing situations tend to be standardized n that each test taker receives the same amount of time to complete the test. It certainly is true that not every one completes a task in the same amount of time, such as in a standardized test.

Then too, each one in a group setting is to read the same set of test questions. Reading skills differ much from one person to the next. Interest in content read also differs much. And yet each person is to read the same content. Background information for test items to be read may be totally lacking for some, but for others the content sounds familiar indeed. Selected pupils are more independent than others and are able to read and respond to test items independently whereas others need more encouragement to proceed sequentially. Test taking skills are more in the repertoire for some as compared to other pupils. Reading of test items is then important whereas other pupils like a hands on approach to learning. That cannot be a fair test to appraise or evaluate reading progress (Ediger, 2002, ERIC ED 462401).

Remedies in Testing

There are no easy ways of documenting pupil achievement. Testing and measuring are still in their infancy. Much work remains to be done to document and use test results to improve instruction. Computer adapted tests (CAT) have been tried out and have attempted to answer the problem of providing for individual differences. In CAT, if a pupil responds incorrectly to a few sequentially presented items, easier items are presented to respond to until the responder has a chance to show what is known. Too frequently, there are children who have a very complex test for their individual developmental level. They miss

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most of the test responses which they give. This then does not measure at their individual achievement level. Little, if anything is measured, if a pupil continually responds incorrectly to test items. Toward the other end of the continuum, if a pupil responds correctly to all, or most, of the test items, CAT provides more complex test items. This is done to determine a present achievement level as well as provide information as to what a pupil needs to learn next. CAT then does make provisions for individual differences in that a learner does not get all, or almost all items incorrect, or a pupil does not respond correctly to all, or almost all test items continuously. CAT items then

1. might well vary, in complexity, from one child as compared to the other.
2. attempts to measure at a point and place where a pupil is presently achieving, not at too complex nor too easy a level.
3. makes adjustments for the test taker.

CAT attempts to minimize the criticism that "one size fits all," in test taking by pupils. These are still paper pencil types of tests and do not take into consideration those who prefer hands on approaches in testing.

Another kind of assessment which could provide valuable information pertaining to pupils achievement is improvement orientated tests. Here, the school system or state gives a valid/reliable test at three intervals during a school year to notice pupil achievement and progress from one time to the next. Sequential progress might then be noticed with feedback provided on what a child needs to work on next. Much excess time might then be necessary to give these interval tests to notice achievement of each pupil.

In Conclusion

There are a plethora of differences among pupils which has in its infancy just been tapped. The following are problems and questions for pondering:

1. there are many kinds of futures for a child such as hands on jobs, such as carpentering with the mass number of houses being built continuously. Should possible pupil progress in these areas be measured? Certainly, many home repair skills are also needed by all pupils, regardless of job or profession followed, for future success.
2. there are many kinds of skills needed in the entertainment industry, such as those with musical intelligence.

How can achievement be measured here?

3. leaders are always needed in different fields of work. What kind of evaluations should be developed to measure sequential skills in pupil leadership?

4. ethics in society is increasingly necessary. Measuring growth in ethics certainly is a very valuable task.

5. group/committee as well as individual endeavors in the classroom are musts for the teacher to provide. How can state mandated tests measure pupil success in committee work?

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